

**IN THE CLAIMS**

Please amend the claims as follows:

1. (Currently Amended) A method for controlling in closed loop an analog system ~~(12)~~ generating an output signal ~~(S')~~ from a control signal ~~(N<sub>C</sub>)~~, wherein the control signal ~~(N<sub>C</sub>)~~ is a series of digital values, each new digital value being determined from the difference between a signal linked to the output signal ~~(S')~~ and the last determined value of the control signal ~~(N<sub>C</sub>)~~ multiplied by a selected factor.

2. (Currently Amended) The control method of claim 1, wherein the analog system ~~(12)~~ generates an analog output signal ~~(S')~~ and is controlled by an analog control signal ~~(V<sub>C</sub>)~~ corresponding to the conversion of the digital control signal ~~(N<sub>C</sub>)~~, said digital control signal ~~(N<sub>C</sub>)~~ being provided by a digital system ~~(42)~~ which generates successive values of the digital control signal ~~(N<sub>C</sub>)~~ based on a reference signal ~~(P<sub>REF</sub>)~~ and on a digital detection signal ~~(N<sup>2</sup><sub>D</sub>)~~ corresponding to the conversion of an analog detection signal ~~(V<sup>2</sup><sub>D</sub>)~~, a new value of the digital control signal ~~(N<sub>C</sub>)~~ being determined according to the steps of:

[[ - ]] measuring an analog signal ~~(V<sub>D</sub>)~~ representative of the analog output signal ~~(S')~~;

[[ - ]] determining the analog detection signal ~~(V<sup>2</sup><sub>D</sub>)~~ based on the difference between the representative analog signal ~~(V<sub>D</sub>)~~ and the analog control signal ~~(V<sub>C</sub>)~~ multiplied by the selected factor;

[[ - ]] converting the analog detection signal ~~(V<sup>2</sup><sub>D</sub>)~~ into a new digital detection signal value ~~(N<sup>2</sup><sub>D</sub>)~~; and

[[ - ]] calculating the new value of the digital control signal ~~(N<sub>C</sub>)~~ based on said new value of the digital detection signal ~~(N<sup>2</sup><sub>D</sub>)~~ and on the last previously-determined value of the digital control signal ~~(N<sub>C</sub>)~~.

3. (Currently Amended) The method of claim 2, wherein the representative analog signal ~~(V<sub>D</sub>)~~ and the analog control signal ~~(V<sub>C</sub>)~~ have the same sign, the analog detection signal

~~(V''<sub>D</sub>)~~—corresponding to the difference between the representative analog signal (~~V<sub>D</sub>~~) and the analog control signal (~~V<sub>C</sub>~~) multiplied by an amplification coefficient (~~K~~).

4. (Currently Amended) The method of claim 1, wherein the analog output signal (~~S'~~) is a variable voltage.

5. (Currently Amended) The method of claim 2, wherein the representative analog signal (~~V<sub>D</sub>~~) is a positive voltage substantially equal to the maximum value of the analog output signal (~~S'~~).

6. (Currently Amended) The method of claim 2, wherein the reference signal (~~P<sub>REF</sub>~~) is representative of the desired power of the analog output signal (~~S'~~).

7. (Currently Amended) The method of claim 3, wherein the amplification coefficient (~~K~~) is constant.

8. (Currently Amended) The method of claim 3, wherein the amplification coefficient (~~K~~) depends on the operating conditions of the digital system (~~12~~).

9. (Currently Amended) A device for controlling an analog system (~~12~~)—a providing an analog output signal (~~S'~~), comprising:

a digital system (~~42~~)—providing a digital control signal (~~N<sub>C</sub>~~);

a digital-to-analog converter (~~16~~)—receiving the digital control signal (~~N<sub>C</sub>~~) and providing an analog control signal (~~V<sub>C</sub>~~) to the analog system (~~12~~);

a sensor (~~20~~)—measuring an analog signal (~~V<sub>D</sub>~~)—representative of the analog output signal (~~S'~~);

a comparator (~~46~~)—providing an analog detection signal (~~V''<sub>D</sub>~~)—based on the representative analog signal (~~V<sub>D</sub>~~) and on the analog control signal (~~V<sub>C</sub>~~); and

an analog-to-digital converter (~~47~~)—converting the analog detection signal (~~V''<sub>D</sub>~~) into a

digital detection signal ( $N_D$ ) provided to the digital system (42), said digital system determining the digital control signal ( $N_C$ ) based on a reference signal ( $P_{REF}$ ) and on the digital detection signal ( $N_D$ ).

10. (Currently Amended) The device of claim 9, wherein the analog system (12) is an amplifier of signals of a portable telephone.